AMENDMENTS TO THE CLAIMS

Please enter the following amendments without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-10. (canceled)

11. (withdrawn): A method of modulating an immune response in an individual, comprising administering to the individual the composition of claim 7 in an amount sufficient to modulate the immune response.

12. (withdrawn): A method according to claim 11, wherein the modulation comprises stimulating production of a Th1-associated cytokine.

13. (withdrawn): A method according to claim 11 wherein the modulation comprises reducing production of a Th2-associated cytokine.

14. (withdrawn): A method according to claim 11, wherein the modulation comprises suppressing production of antigen-specific antibodies.

15. (withdrawn): A method of modulating an immune response in an individual, comprising administering to the individual the composition of claim 8 in an amount sufficient to modulate the immune response.

16. (withdrawn): A method according to claim 15, wherein the modulation comprises stimulating production of a Th1-associated cytokine.

17. (withdrawn): A method according to claim 15, wherein the modulation comprises reducing production of a Th2-associated cytokine.

18. (withdrawn): A method according to claim 15, wherein the modulation comprises suppressing production of antigen-specific antibodies.

19. (withdrawn): A method of modulating an immune response in an individual, comprising administering to the individual the composition of claim 9 in an amount sufficient to modulate the immune response.

20. (withdrawn): A method according to claim 19, wherein the modulation comprises stimulating production of a Th1-associated cytokine.

21. (withdrawn): A method according to claim 19 wherein the modulation comprises reducing production of a Th2-associated cytokine.

22. (withdrawn): A method of modulating an immune response in an individual, comprising administering to the individual the composition of claim 10 in an amount sufficient to modulate the immune response.

23. (withdrawn): A method according to claim 22, wherein the modulation comprises stimulating production of a Th1-associated cytokine.

24. (withdrawn): A method according to claim 22, wherein the modulation comprises reducing production of a Th2-associated cytokine.

25. (withdrawn): A method of treating an allergic condition in an individual, comprising administering a composition comprising the population of claim 2 and a pharmaceutically acceptable excipient, said composition administered in an amount sufficient to palliate the allergic condition.

26. (withdrawn): A method according to claim 25, wherein production of a Th1-associated cytokine is stimulated.

27. (withdrawn): A method for reducing antigen-stimulated IgE production in an individual, comprising administering the composition of claim 8 in an amount sufficient to reduce IgE production stimulated by the antigen in the individual.

28. (withdrawn): A method for reducing antigen-stimulated IgE production in an individual, comprising administering the composition of claim 10 in an amount sufficient to reduce IgE production stimulated by the antigen in the individual.

29. (withdrawn): A method for treating an IgE-related disorder in an individual, comprising administering the composition of claim 8 in an amount sufficient to reduce IgE production and treat the disorder in the individual.

30. (withdrawn): A method for treating an IgE-related disorder in an individual, comprising administering the composition of claim 10 in an amount sufficient to reduce IgE production and treat the disorder in the individual.

31. (withdrawn): A method for stimulating Th1 lymphocytes in an individual, comprising administering the composition of claim 7 in an amount sufficient to stimulate Th1 lymphocytes in the individual.

32. (withdrawn): A method according to claim 31, wherein production of a Th1-associated cytokine is stimulated.

33. (withdrawn): A method for stimulating Th1 lymphocytes in an individual, comprising administering the composition of claim 8 in an amount sufficient to stimulate Th1 lymphocytes in the individual.

34. (withdrawn): A method for stimulating Th1 lymphocytes in an individual, comprising administering the composition of claim 9 in an amount sufficient to stimulate Th1 lymphocytes in the individual.

35. (withdrawn): A method according to claim 34, wherein production of a Th1-associated cytokine is stimulated.

36. (withdrawn): A method for stimulating Th1 lymphocytes in an individual, comprising administering the composition of claim 10 in an amount sufficient to stimulate Th1 lymphocytes in the individual.

37. (withdrawn): A method for suppressing Th2 lymphocytes in an individual, comprising administering the composition of claim 7 in an amount sufficient to suppress Th2 lymphocytes in the individual.

38. (withdrawn): A method according to claim 37, wherein production of a Th2-associated cytokine is suppressed.

39. (withdrawn): A method for suppressing Th2 lymphocytes in an individual, comprising administering the composition of claim 8 in an amount sufficient to suppress Th2 lymphocytes in the individual.

40. (withdrawn): A method for suppressing Th2 lymphocytes in an individual, comprising administering the composition of claim 9 in an amount sufficient to suppress Th2 lymphocytes in the individual.

41. (withdrawn): A method according to claim 40, wherein production of a Th2-associated cytokine is suppressed.

42. (withdrawn): A method for suppressing Th2 lymphocytes in an individual, comprising administering the composition of claim 10 in an amount sufficient to suppress Th2 lymphocytes in the individual.

43-62. (canceled)

63. (currently amended): A population of conjugate molecules, said conjugate molecules comprising an ~~antigen~~ allergen and a polynucleotide comprising an immunostimulatory sequence (ISS), wherein said ISS comprises ~~the sequence~~ 5'-cytosine[[,]] guanine-3', wherein the polynucleotide is greater than [[6]] 8 and less than about 200 nucleotides in length and wherein the extent of conjugation in the population provides an average of at least 5.5 ISS-containing polynucleotides per ~~antigen~~ allergen molecule.

64. (canceled)

65. (withdrawn): The population of claim 63, wherein said immunostimulatory sequence comprises the sequence 5'-T, C, G-3'.

66. (withdrawn): The population of claim 63, wherein said immunostimulatory sequence comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine-3'.

67. (withdrawn): The population of claim 66, wherein said immunostimulatory sequence comprises a sequence selected from the group consisting of GACGCT, GACGTC, GACGTT, GACGCC, GACGCU, GACGUC, GACGUU, GACGUT, GACGTU, AGCGTT, AGCGCT, AGCGTC, AGCGCC, AGCGUU, AGCGCU, AGCGUC, AGCGUT, AGCGTU, AACGTC, AACGCC, AACGTT, AACGCT, AACGUC, AACGUU, AACGCU, AACGUT, AACGTU, GGCGTT, GGCGCT, GGCGTC, GGCGCC, GGCGUU, GGCGCU, GGCGUC, GGCGUT, and GGCGTU.

68. (withdrawn): The population of claim 66, wherein said immunostimulatory sequence comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, C-3'.

69. (withdrawn): The population of claim 68, wherein said immunostimulatory sequence comprises a sequence selected from the group consisting of GACGCTCC, GACGTCCC, GACGTTCC, GACGCCCC, AGCGTTCC, AGCGCTCC, AGCGTCCC, AGCGCCCC,

AACGTCCC, AACGCCCC, AACGTTCC, AACGCTCC, GGCGTTCC, GGCGCTCC, GGCGTCCC, and GGCGCCCC.

70. (withdrawn): The population of claim 69, wherein said immunostimulatory sequence comprises a sequence selected from the group consisting of
5'-TCATCTCGAACGTTCCACAGTCA-3' (SEQ ID NO:3),
5'-TGACTGTGAACGTTCCAGATGA-3' (SEQ ID NO:4),
5'-TGACTGTGAABGTTCCAGATGA-3' (SEQ ID NO:6) where B is 5-bromocytosine.

71. (previously presented): The population of claim 63, wherein said ISS comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, G-3'.

72. (previously presented): The population of claim 71, wherein said ISS comprises a sequence selected from the group consisting of GACGCTCG, GACGTCCG, GACGCCCG, GACGTTCG, AGCGCTCG, AGCGTTCG, AGCGTCCG, AGCGCCCG, AACGTCCG, AACGCCCG, AACGTTCG, AACGCTCG, GGCGTTCG, GGCGCTCG, GGCGTCCG, and GGCGCCCG.

73. (withdrawn): The population of claim 72, wherein said immunostimulatory sequence comprises a sequence selected from the group consisting of
5'-TGACTGTGAACGTTCGAGATGA-3' (SEQ ID NO:1),
5'-TGACCGTGAACGTTCGAGATGA-3' (SEQ ID NO:2),
5'-TCCATAACGTTCGCCTAACGTTCGTC-3' (SEQ ID NO:5)
5'-TGACTGTGAABGTTCGAGATGA-3' (SEQ ID NO:7) where B is 5-bromocytosine, and
5'-TGACTGTGAABGTTBGAGATGA-3' (SEQ ID NO:8) where B is 5-bromocytosine.

74. (previously presented): A composition comprising the population of claim 63 in a pharmaceutically acceptable excipient.

75. (currently amended): A population of conjugate molecules, said conjugate molecules comprising an ~~antigen~~ allergen and a polynucleotide comprising an immunostimulatory sequence (ISS), wherein said ISS comprises ~~the sequence~~ 5'-cytosine[[,]] guanine-3', wherein the polynucleotide is greater than [[6]] 8 and less than about 200 nucleotides in length and wherein the extent of conjugation in the population provides a ratio of (i) average mass of ISS-containing polynucleotide to (ii) average mass of ~~antigen~~ allergen of at least about 45 to about 40.

76. (withdrawn): The population of claim 75, wherein said immunostimulatory sequence comprises the sequence 5'-cytosine, guanine-3'.

77. (withdrawn): The population of claim 75, wherein said immunostimulatory sequence comprises the sequence 5'-T, C, G-3'.

78. (withdrawn): The population of claim 75, wherein said immunostimulatory sequence comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine-3'.

79. (withdrawn): The population of claim 78, wherein said immunostimulatory sequence comprises a sequence selected from the group consisting of GACGCT, GACGTC, GACGTT, GACGCC, GACGCU, GACGUC, GACGUU, GACGUT, GACGTU, AGCGTT, AGCGCT, AGCGTC, AGCGCC, AGCGUU, AGCGCU, AGCGUC, AGCGUT, AGCGTU, AACGTC, AACGCC, AACGTT, AACGCT, AACGUC, AACGUU, AACGCU, AACGUT, AACGTU, GGCGTT, GGCGCT, GGCGTC, GGCGCC, GGCGUU, GGCGCU, GGCGUC, GGCGUT, and GGCGTU.

80. (withdrawn): The population of claim 78, wherein said immunostimulatory sequence comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, C-3'.

81. (withdrawn): The population of claim 80, wherein said immunostimulatory sequence comprises a sequence selected from the group consisting of GACGCTCC, GACGTCCC, GACGTTCC, GACGCCCC, AGCGTTCC, AGCGCTCC, AGCGTCCC, AGCGCCCC,

AACGTCCC, AACGCCCC, AACGTTCC, AACGCTCC, GGCGTTCC, GGCGCTCC, GGCGTCCC, and GGCGCCCC.

82. (withdrawn): The population of claim 81, wherein said immunostimulatory sequence comprises a sequence selected from the group consisting of
5'-TCATCTCGAACGTTCCACAGTCA-3' (SEQ ID NO:3),
5'-TGACTGTGAACGTTCCAGATGA-3' (SEQ ID NO:4),
5'-TGACTGTGAABGTTCCAGATGA-3' (SEQ ID NO:6) where B is 5-bromocytosine.

83. (previously presented): The population of claim 75, wherein said ISS comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, G-3'.

84. (previously presented): The population of claim 83, wherein said ISS comprises a sequence selected from the group consisting of GACGCTCG, GACGTCCG, GACGCCCG, GACGTTCG, AGCGCTCG, AGCGTTCG, AGCGTCCG, AGCGCCCG, AACGTCCG, AACGCCCG, AACGTTCG, AACGCTCG, GGCGTTCG, GGCGCTCG, GGCGTCCG, and GGCGCCCG.

85. (withdrawn): The population of claim 84, wherein said immunostimulatory sequence comprises a sequence selected from the group consisting of
5'-TGACTGTGAACGTTCGAGATGA-3' (SEQ ID NO:1),
5'-TGACCGTGAACGTTCGAGATGA-3' (SEQ ID NO:2),
5'-TCCATAACGTTCGCCTAACGTTCGTC-3' (SEQ ID NO:5)
5'-TGACTGTGAABGTTCGAGATGA-3' (SEQ ID NO:7) where B is 5-bromocytosine, and
5'-TGACTGTGAABGTTBGAGATGA-3' (SEQ ID NO:8) where B is 5-bromocytosine.

86. (previously presented): A composition comprising the population of claim 75 in a pharmaceutically acceptable excipient.

87. (canceled)

88. (withdrawn): The population according to claim 63, wherein the antigen is a viral antigen.

89. (withdrawn): The population according to claim 75, wherein the antigen is a viral antigen.

90-94. (canceled)

95. (currently amended): The population according claim [[94]] 63, wherein the allergen is Amb a 1.

96. (currently amended): The population according to claim [[94]] 63, wherein the allergen is selected from the group consisting of a pollen allergen, an insect allergen, a mammal allergen, a nut allergen, a crustacean allergen and a fungal allergen.

97. (currently amended): The population according to claim [[94]] 63, wherein the allergen is selected from the group consisting of a ragweed allergen, a grass allergen, a birch allergen, a cedar allergen, a juniper allergen, a dust mite allergen, a cockroach allergen, a cat allergen, a dog allergen, a peanut allergen, a wheat allergen and a latex allergen.

98. (canceled)

99. (currently amended): The population according claim [[98]] 75, wherein the allergen is Amb a 1.

100. (currently amended): The population according to claim [[98]] 75, wherein the allergen is selected from the group consisting of a pollen allergen, an insect allergen, a mammal allergen, a nut allergen, a crustacean allergen and a fungal allergen.

101. (currently amended): The population according to claim [[98]] 75, wherein the allergen is selected from the group consisting of a ragweed allergen, a grass allergen, a birch allergen, a cedar allergen, a juniper allergen, a dust mite allergen, a cockroach allergen, a cat allergen, a dog allergen, a peanut allergen, a wheat allergen and a latex allergen.

102-105. (canceled)

106. (currently amended): The population according to claim 63, wherein the ~~antigen~~ allergen is a polypeptide.

107. (currently amended): The population according to claim 75, wherein the ~~antigen~~ allergen is a polypeptide.

108. (currently amended): A population of conjugate molecules made by the process comprising: combining a polynucleotide comprising an immunostimulatory sequence (ISS) and ~~antigen~~ allergen at a ratio of about 17 molar equivalents of the polynucleotide to about 1 molar equivalent of the ~~antigen~~ allergen whereby conjugate molecules comprising the polynucleotide and ~~antigen~~ allergen are formed, wherein the polynucleotide is greater than [[6]] 8 and less than about 200 nucleotides in length and wherein the ISS comprises ~~the sequence~~ 5'-cytosine[[,]] guanine-3'.